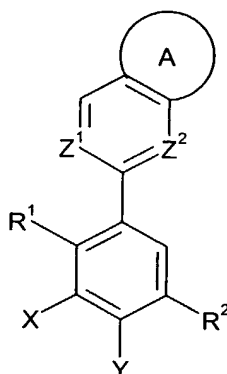


## CLAIMS

1. A compound of formula (I):



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(I)

wherein

A is a fused 5-membered heteroaryl ring containing one or two heteroatoms independently selected from oxygen and nitrogen which heteroaryl ring is optionally substituted by up to two substituents independently selected from C<sub>1-6</sub>alkyl, -(CH<sub>2</sub>)<sub>k</sub>-C<sub>3-7</sub>cycloalkyl, halogen, cyano, trifluoromethyl, -(CH<sub>2</sub>)<sub>k</sub>OR<sup>3</sup>, -(CH<sub>2</sub>)<sub>k</sub>CO<sub>2</sub>R<sup>3</sup>, -(CH<sub>2</sub>)<sub>k</sub>NR<sup>3</sup>R<sup>4</sup>, -(CH<sub>2</sub>)<sub>k</sub>CONR<sup>3</sup>R<sup>4</sup>, -(CH<sub>2</sub>)<sub>k</sub>NHCOR<sup>3</sup>, -(CH<sub>2</sub>)<sub>k</sub>SO<sub>2</sub>NR<sup>3</sup>R<sup>4</sup>, -(CH<sub>2</sub>)<sub>k</sub>NHSO<sub>2</sub>R<sup>3</sup>, -(CH<sub>2</sub>)<sub>k</sub>SO<sub>2</sub>(CH<sub>2</sub>)<sub>m</sub>R<sup>5</sup>, a 5- or 6-membered heterocyclyl ring containing nitrogen optionally substituted by C<sub>1-2</sub>alkyl or -(CH<sub>2</sub>)<sub>k</sub>CO<sub>2</sub>R<sup>3</sup>, and a 5-membered heteroaryl ring optionally substituted by C<sub>1-2</sub>alkyl;

A is a fused 5-membered heteroaryl ring containing one or two heteroatoms independently selected from oxygen and nitrogen which heteroaryl ring is substituted by -BR<sup>6</sup>, and the heteroaryl ring is optionally further substituted by one substituent selected from -OR<sup>7</sup>, halogen, trifluoromethyl, -CN, -CO<sub>2</sub>R<sup>7</sup> and C<sub>1-6</sub>alkyl optionally substituted by hydroxy;

A is a fused 5-membered heteroaryl ring containing one or two heteroatoms independently selected from oxygen and nitrogen which heteroaryl ring is substituted by -(CH<sub>2</sub>)<sub>n</sub>heterocyclyl wherein the heterocyclyl is a 5- or 6-membered heterocyclic ring containing one or two heteroatoms independently selected from oxygen, sulfur and nitrogen optionally substituted by up to two substituents independently selected from oxo, C<sub>1-6</sub>alkyl, -(CH<sub>2</sub>)<sub>p</sub>phenyl, -OR<sup>7</sup>, -(CH<sub>2</sub>)<sub>p</sub>CO<sub>2</sub>R<sup>7</sup>, -NR<sup>7</sup>R<sup>8</sup> and -CONR<sup>7</sup>R<sup>8</sup>, and the heteroaryl ring is optionally further substituted by one substituent selected from -OR<sup>7</sup>, halogen, trifluoromethyl, -CN, -CO<sub>2</sub>R<sup>7</sup> and C<sub>1-6</sub>alkyl optionally substituted by hydroxy; or

A is a fused 5-membered heteroaryl ring containing one or two heteroatoms independently selected from oxygen and nitrogen which heteroaryl ring is substituted by -(CH<sub>2</sub>)<sub>q</sub>aryl or -(CH<sub>2</sub>)<sub>q</sub>heteroaryl wherein the aryl or heteroaryl is optionally substituted by one or more substituents independently selected from oxo, C<sub>1-6</sub>alkyl, halogen, cyano,

trifluoromethyl,  $-OR^9$ ,  $-(CH_2)_rCO_2R^{10}$ ,  $-NR^9R^{10}$ ,  $-(CH_2)_rCONR^9R^{10}$ ,  $-NHCOR^9$ ,  $-SO_2NR^9R^{10}$ ,  $-NHSO_2R^9$  and  $-S(O)_sR^9$ , and

the heteroaryl ring is optionally further substituted by one substituent selected from  $-OR^7$ , halogen, trifluoromethyl,  $-CN$ ,  $-CO_2R^7$  and  $C_{1-6}$ alkyl optionally substituted by hydroxy;

5  $R^1$  is selected from methyl and chloro;

$R^2$  is selected from  $-NH-CO-R^{11}$  and  $-CO-NH-(CH_2)_t-R^{12}$ ;

$R^3$  is selected from hydrogen,  $C_{1-6}$ alkyl optionally substituted by up to two OH groups,  $-(CH_2)_k-C_{3-7}$ cycloalkyl,  $-(CH_2)_k$ phenyl optionally substituted by  $R^{13}$  and/or  $R^{14}$  and  $-(CH_2)_k$ heteroaryl optionally substituted by  $R^{13}$  and/or  $R^{14}$ ,

10  $R^4$  is selected from hydrogen and  $C_{1-6}$ alkyl, or

$R^3$  and  $R^4$ , together with the nitrogen atom to which they are bound, form a 5- or 6-membered heterocyclic ring optionally containing one additional heteroatom selected from oxygen, sulfur and N- $R^{15}$ ;

15  $R^5$  is selected from  $C_{1-6}$ alkyl optionally substituted by up to three halogen atoms,  $C_{2-6}$ alkenyl optionally substituted by phenyl,  $C_{3-7}$ cycloalkyl, heteroaryl optionally substituted by up to three  $R^{13}$  and/or  $R^{14}$  groups, and phenyl optionally substituted by  $R^{13}$  and/or  $R^{14}$ ;

$R^6$  is a  $C_{3-6}$ alkyl group substituted by at least two substituents independently selected from  $-OR^{16}$ ,  $-NR^{16}R^{17}$ ,  $-CO_2R^{16}$ ,  $-CONR^{16}R^{17}$ ,  $-NHCOR^{16}$  and  $-NHSO_2R^{16}$ ;

$R^7$  and  $R^8$  are each independently selected from hydrogen and  $C_{1-6}$ alkyl;

20  $R^9$  is selected from hydrogen,  $-(CH_2)_u-C_{3-7}$ cycloalkyl,  $-(CH_2)_u$ heterocyclyl,  $-(CH_2)_u$ aryl, and  $C_{1-6}$ alkyl optionally substituted by up to two substituents independently selected from  $-OR^{18}$  and  $-NR^{18}R^{19}$ ,

$R^{10}$  is selected from hydrogen and  $C_{1-6}$ alkyl, or

25  $R^9$  and  $R^{10}$ , together with the nitrogen atom to which they are bound, form a 5- or 6-membered heterocyclic ring optionally containing one additional heteroatom selected from oxygen, sulfur and N- $R^{15}$ ;

$R^{11}$  is selected from hydrogen,  $C_{1-6}$ alkyl,  $-(CH_2)_t-C_{3-7}$ cycloalkyl, trifluoromethyl,  $-(CH_2)_v$ heteroaryl optionally substituted by  $R^{20}$  and/or  $R^{21}$ , and  $-(CH_2)_v$ phenyl optionally substituted by  $R^{20}$  and/or  $R^{21}$ ;

30  $R^{12}$  is selected from hydrogen,  $C_{1-6}$ alkyl,  $C_{3-7}$ cycloalkyl,  $-CONHR^{22}$ , phenyl optionally substituted by  $R^{20}$  and/or  $R^{21}$ , and heteroaryl optionally substituted by  $R^{20}$  and/or  $R^{21}$ ;

$R^{13}$  and  $R^{14}$  are each independently selected from halogen, cyano, trifluoromethyl, nitro,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy,  $-CONR^{22}R^{23}$ ,  $-COR^{24}$ ,  $-CO_2R^{24}$ , and heteroaryl, or

35  $R^{13}$  and  $R^{14}$  are linked to form a fused 5-membered heterocyclyl ring containing one heteroatom selected from oxygen, sulfur and N- $R^{15}$ , or a fused heteroaryl ring;

$R^{15}$  is selected from hydrogen and methyl;

$R^{16}$ ,  $R^{17}$ ,  $R^{18}$  and  $R^{19}$  are each independently selected from hydrogen and  $C_{1-6}$ alkyl;

40  $R^{20}$  is selected from  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy,  $-(CH_2)_t-C_{3-7}$ cycloalkyl,  $-CONR^{22}R^{23}$ ,  $-NHCOR^{23}$ , halogen,  $-CN$ ,  $-(CH_2)_wNR^{25}R^{26}$ , trifluoromethyl, phenyl optionally substituted by one or more  $R^{21}$  groups, and heteroaryl optionally substituted by one or more  $R^{21}$  groups;

- R<sup>21</sup> is selected from C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkoxy, halogen, trifluoromethyl, and -  
(CH<sub>2</sub>)<sub>w</sub>NR<sup>25</sup>R<sup>26</sup>;
- R<sup>22</sup> and R<sup>23</sup> are each independently selected from hydrogen and C<sub>1-6</sub>alkyl, or  
R<sup>22</sup> and R<sup>23</sup>, together with the nitrogen atom to which they are bound, form a 5- or  
5 6-membered heterocyclic ring optionally containing one additional heteroatom selected from  
oxygen, sulfur and N-R<sup>15</sup>, wherein the ring may be substituted by up to two C<sub>1-6</sub>alkyl  
groups;
- R<sup>24</sup> is C<sub>1-6</sub>alkyl;
- R<sup>25</sup> is selected from hydrogen, C<sub>1-6</sub>alkyl and -(CH<sub>2</sub>)<sub>t</sub>-C<sub>3-7</sub>cycloalkyl optionally  
10 substituted by C<sub>1-6</sub>alkyl,
- R<sup>26</sup> is selected from hydrogen and C<sub>1-6</sub>alkyl, or  
R<sup>25</sup> and R<sup>26</sup>, together with the nitrogen atom to which they are bound, form a 5- or  
6-membered heterocyclic ring optionally containing one additional heteroatom selected from  
oxygen, sulfur and N-R<sup>15</sup>;
- 15 B is selected from a bond, oxygen, NH and S(O)<sub>x</sub>;
- X and Y are each independently selected from hydrogen, methyl and halogen;
- Z<sup>1</sup> is N or N=O and Z<sup>2</sup> is CH,  
Z<sup>1</sup> is CH and Z<sup>2</sup> is N or N=O, or  
Z<sup>1</sup> and Z<sup>2</sup> are each independently selected from N or N=O;
- 20 k, m and w are each independently selected from 0, 1, 2 and 3;
- n, q, r, s, t and x are each independently selected from 0, 1 and 2; and  
u and v are each independently selected from 0 and 1;  
or a pharmaceutically acceptable derivative thereof.
- 25 2. A compound according to claim 1 wherein A is a 5-membered heteroaryl ring  
containing two heteroatoms independently selected from oxygen and nitrogen.
3. A compound according to claim 1 or claim 2 wherein A is substituted by up to two  
substituents independently selected from C<sub>1-4</sub>alkyl, halogen, -(CH<sub>2</sub>)<sub>k</sub>NR<sup>3</sup>R<sup>4</sup>, -  
30 (CH<sub>2</sub>)<sub>k</sub>NHCOR<sup>3</sup>, -(CH<sub>2</sub>)<sub>k</sub>NHSO<sub>2</sub>R<sup>3</sup> and -(CH<sub>2</sub>)<sub>k</sub>SO<sub>2</sub>(CH<sub>2</sub>)<sub>m</sub>R<sup>5</sup>, or A is substituted by -  
(CH<sub>2</sub>)<sub>q</sub>aryl wherein the aryl is optionally substituted by one or two substituents independently  
selected from C<sub>1-6</sub>alkyl, halogen, cyano, -OR<sup>9</sup> and -(CH<sub>2</sub>)<sub>r</sub>CO<sub>2</sub>R<sup>10</sup>.
4. A compound according to any one of the preceding claims wherein A is substituted by  
35 -(CH<sub>2</sub>)<sub>k</sub>SO<sub>2</sub>(CH<sub>2</sub>)<sub>m</sub>R<sup>5</sup> or -(CH<sub>2</sub>)<sub>q</sub>aryl wherein the aryl is substituted by C<sub>1-6</sub>alkyl or  
halogen.
5. A compound according to any one of the preceding claims wherein R<sup>1</sup> is methyl.
- 40 6. A compound according to any one of the preceding claims wherein R<sup>2</sup> is -CO-NH-  
(CH<sub>2</sub>)<sub>t</sub>-R<sup>12</sup>.

7. A compound according to any one of the preceding claims wherein X is hydrogen or fluorine.
8. A compound according to claim 1 substantially as hereinbefore defined with reference to any one of Examples 1 to 58, or a pharmaceutically acceptable derivative thereof.
9. A compound selected from:  
*N*-cyclopropyl-4-methyl-3-{1-[(1-methylethyl)sulfonyl]-1*H*-pyrazolo[3,4-*c*]pyridin-5-yl}benzamide;  
 10 *N*-cyclopropyl-4-methyl-5-[1-(2-thienylsulfonyl)-1*H*-pyrazolo[3,4-*c*]pyridin-5-yl]benzamide;  
*N*-cyclopropyl-3-fluoro-4-methyl-5-[1-(2-thienylsulfonyl)-1*H*-pyrazolo[3,4-*c*]pyridin-5-yl]benzamide;  
*N*-cyclopropyl-3-[1-(cyclopropylsulfonyl)-1*H*-pyrazolo[3,4-*c*]pyridin-5-yl]-5-fluoro-4-methylbenzamide;  
 15 *N*-cyclopropyl-3-fluoro-4-methyl-5-[1-(3-methylphenyl)-1*H*-pyrazolo[3,4-*c*]pyridin-5-yl]benzamide;  
*N*-cyclopropyl-4-methyl-5-(1-phenyl-1*H*-pyrazolo[3,4-*c*]pyridin-5-yl)benzamide;  
*N*-cyclopropyl-3-[1-(2-fluorophenyl)-1*H*-pyrazolo[3,4-*c*]pyridin-5-yl]-4-methylbenzamide;  
*N*-cyclopropyl-3-fluoro-5-[3-(4-fluorophenyl)-1*H*-pyrazolo[3,4-*b*]pyridin-6-yl]-4-methylbenzamide;  
 20 3-fluoro-5-[3-(4-fluorophenyl)-1*H*-pyrazolo[3,4-*b*]pyridin-6-yl]-4-methyl-*N*-(1-methyl-1*H*-pyrazol-5-yl)benzamide;  
 3-fluoro-5-[3-(4-fluorophenyl)-1*H*-pyrazolo[4,3-*c*]pyridin-6-yl]-4-methyl-*N*-(1-methyl-1*H*-pyrazol-5-yl)benzamide;  
 25 3-[3-(acetylamino)-1*H*-pyrazolo[3,4-*b*]pyridin-6-yl]-*N*-cyclopropyl-4-methylbenzamide;  
*N*-cyclopropyl-4-methyl-3-{3-[(2-methylpropanoyl)amino]-1*H*-pyrazolo[3,4-*b*]pyridin-6-yl}benzamide;  
*N*-cyclopropyl-4-methyl-3-[3-(propanoylamino)-1*H*-pyrazolo[3,4-*b*]pyridin-6-yl]benzamide;  
 and  
 30 *N*-(6-{5-[(cyclopropylamino)carbonyl]-2-methylphenyl}-1*H*-pyrazolo[3,4-*b*]pyridin-3-yl)-2-thiophenecarboxamide;  
 or a pharmaceutically acceptable derivative thereof.
10. A pharmaceutical composition comprising at least one compound as claimed in any one of claims 1 to 9, or a pharmaceutically acceptable derivative thereof, in association with one or more pharmaceutically acceptable excipients, diluents and/or carriers.
11. A compound according to any one of claims 1 to 9, or a pharmaceutically acceptable derivative thereof, for use in therapy.
12. A compound as claimed in any one of claims 1 to 9, or a pharmaceutically acceptable derivative thereof, for use in the treatment or prophylaxis of a condition or disease state

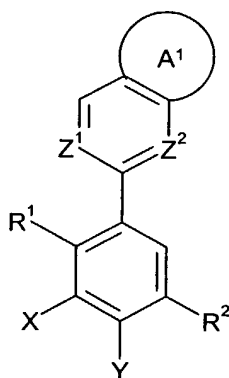
mediated by p38 kinase activity or mediated by cytokines produced by the activity of p38 kinase.

13. A method for treating a condition or disease state mediated by p38 kinase activity or mediated by cytokines produced by the activity of p38 kinase comprising administering to a patient in need thereof a compound as claimed in any one of claims 1 to 9, or a pharmaceutically acceptable derivative thereof.

14. Use of a compound as claimed in any one of claims 1 to 9, or a pharmaceutically acceptable derivative thereof, in the manufacture of a medicament for use in the treatment of a condition or disease state mediated by p38 kinase activity or mediated by cytokines produced by the activity of p38 kinase.

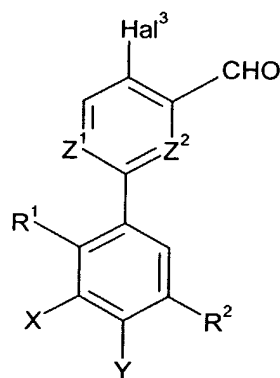
15. A process for preparing a compound of formula (I) as claimed in any one of claims 1 to 9, or a pharmaceutically acceptable derivative thereof, which comprises

(a) reacting a compound of formula (II)



in which R<sup>1</sup>, R<sup>2</sup>, X, Y, Z<sup>1</sup> and Z<sup>2</sup> are as defined in claim 1 and A<sup>1</sup> is an unsubstituted fused 5-membered heteroaryl ring containing one or two heteroatoms independently selected from oxygen and nitrogen with a halide derivative, in the presence of a base;

(b) when A is a fused pyrazolyl, reacting a compound of formula (XI)

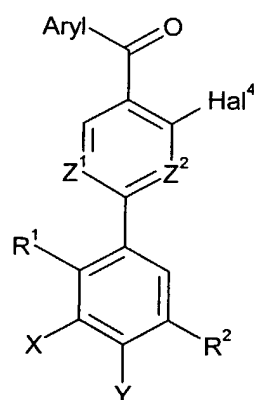


(XI)

in which R<sup>1</sup>, R<sup>2</sup>, X, Y, Z<sup>1</sup> and Z<sup>2</sup> are as hereinbefore defined and Hal<sup>3</sup> is halogen, in particular chlorine, with a hydrazine derivative;

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(c) when A is a fused pyrazolyl substituted by aryl, reacting a compound of formula (XII)



(XII)

10 in which R<sup>1</sup>, R<sup>2</sup>, X, Y, Z<sup>1</sup> and Z<sup>2</sup> are as hereinbefore defined and Hal<sup>4</sup> is halogen, in particular chlorine, with a hydrazine derivative; or

(d) final stage modification of one compound of formula (I) as defined in claim 1 to give another compound of formula (I) as defined in claim 1.

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